ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION
AIR QUALITY CONSTRUCTION PERMIT

Permit No. 241CP02 Final – November 25, 2002

OWNER REQUEST TO REVISE TERMS AND CONDITIONS OF OPERATING PERMIT 241TVP01, REVISION 1

The Department of Environmental Conservation, under the authority of AS 46.03, AS 46.14, AS 46.40, 6 AAC 50, 18 AAC 15, and 18 AAC 50.315, issues an Air Quality Construction Permit to:

Owner/Operator:	**ALYESKA SEAFOODS, INC.** **P.O. Box 350** **Unalaska, Alaska 99685**
Permittee:	**ALYESKA SEAFOODS, INC.**
Facility:	**Unalaska Seafood Processing Facility**

The Department revises terms and conditions of Operating Permit 241TVP01, Revision 1, to:

- Remove the individual fuel caps on the engines (Source IDs 1 through 6), and replace them with a Cumulative Equivalent Total (CET) fuel cap and maximum fuel cap for the engines.
- Remove the individual fuel caps on the boilers (Source IDs 7 through 10), and replace them with a CET fuel cap and maximum fuel CAP for the boilers.

John F. Kuterbach, Manager
Air Permits Program

PERMIT TERMS AND CONDITIONS

I. Visible Emission Standard. The Permittee shall not cause or allow visible emissions, excluding condensed water vapor, emitted from Source IDs 1 through 11 shown in Exhibit A to reduce visibility through the exhaust effluent by greater than 20 percent averaged over any six minutes.

II. NO_X PSD Avoidance Limits. The Permittee shall not allow the engines (Source IDs 1 - 4, 5, and 6, combined, shown in Exhibit A) to emit more than 273 tons of NO_X per 12 consecutive months, shall not allow the boilers (Source IDs 7, 8, 9, and 10, combined, shown in Exhibit A) to emit more than 14 tons of NO_X per 12 consecutive months, and shall not allow the fishmeal dryer (Source ID 11, shown in Exhibit A) to emit more than 5.2 tons of NO_X per 12 consecutive months.

A. Track fuel consumption for each Source ID 1 through 11, shown in Exhibit A, using either condition II.A.1 or II.A.2.

1. Maintain and operate in good working order a continuous system for recording and monitoring fuel consumed in each source. Calculate and record the total fuel consumed in each Source IDs 1 through 11 each month.

2. Record hours of operation daily, and calculate and record fuel consumed in each Source ID 1 through 11 each month using hours of operation and maximum fuel consumption rates shown in Table 1.

Table 1 - Maximum Fuel Consumption Rates

SOURCE ID	MAXIMUM FUEL CONSUMPTION RATE IN GAL/HR
1	56.5
2 – 4	168.5
5	91.8
6	125.4
7	106.9
8	71
9	91.6
10	50.9
11	175

B. For the engines:

1. Do not exceed a CET fuel limit of 1,440,700 gallons per 12 consecutive months. By the

15th of each month calculate the CET for the engines using Equation 1.

Equation 1 $$CET = (0.782)G_{1-4} + (1.771)G_5 + (1.863)G_6$$

where:
$G_{1\text{-}4}$ = Preceding 12 month rolling total fuel burned in Source IDs 1 - 4
G_5 = Preceding 12 month rolling total fuel burned in Source ID 5
G_6 = Preceding 12 month rolling total fuel burned in Source ID 6

2. By the 15th of each month, calculate and record 12 month rolling total NO_X emissions for the previous 12 months using Equation 2.

Equation 2 $$Emissions\,(tpy) = \left[\frac{(0.297)G_{1-4} + (0.672)G_5 + (0.707)G_6}{2000}\right]$$

where:
$G_{1\text{-}4}$ = Preceding 12 month rolling total fuel burned in Source IDs 1 - 4
G_5 = Preceding 12 month rolling total fuel burned in Source ID 5
G_6 = Preceding 12 month rolling total fuel burned in Source ID 6

3. Report as a permit deviation any time the CET calculated in condition II.B.1 exceeds the CET fuel limit in condition II.B.1 and any time the total emissions calculated in condition II.B.2 exceeds the limit for the engines in condition II.

4. Include the records required under conditions II.B.1 and II.B.2 with the Facility Operating Report required by condition 40 of Operating Permit No. 241TVP01, Revision 1.

C. For the boilers,

1. Do not exceed a CET fuel limit of 1,122,557 gallons per 12 consecutive months. By the 15th of each month calculate the CET for the boilers using Equation 3:

Equation 3 $$CET = (1.205)G_7 + (0.562)G_8 + (1.607)G_9 + (1.085)G_{10}$$

where:
G_7 = Preceding 12 month rolling total fuel burned in Source ID 7, gallons
G_8 = Preceding 12 month rolling total fuel burned in Source ID 8, gallons
G_9 = Preceding 12 month rolling total fuel burned in Source ID 9, gallons
G_{10} = Preceding 12 month rolling total fuel burned in Source ID 10, gallons

2. By the 15th of each month, calculate and record 12 month rolling total NO_X emissions for the previous 12 months using Equation 4.

Equation 4 $Emissions\ (tpy) = \left[\frac{(0.030)G_7 + (0.014)G_8 + (0.040)G_9 + (0.027)G_{10}}{2000}\right]$

where:

G_7 = Preceding 12 month rolling total fuel burned in Source ID 7, gallons
G_8 = Preceding 12 month rolling total fuel burned in Source ID 8, gallons
G_9 = Preceding 12 month rolling total fuel burned in Source ID 9, gallons
G_{10} = Preceding 12 month rolling total fuel burned in Source ID 10, gallons

3. Report as a permit deviation any time the CET calculated in condition II.C.1 exceeds the CET fuel limit in condition II.C.1 and any time the total emissions calculated in condition II.C.2 exceed the limit for the engines in condition II.

4. Include the records required under conditions II.C.1 and II.C.2 with the Facility Operating Report required by condition 40 of Operating Permit No. 241TVP01, Revision 1.

D. For the Fishmeal Dryer:

1. Using the fuel quantity for the fishmeal dryer recorded in condition II.A, calculate NO_X emissions using an emission factor of 20-lb/1000 gal.

2. Report as a permit deviation any time the 12-month NO_X emissions for the fishmeal dryer exceeds the limit in condition II.

3. Include the records required under condition II.D.1 with the Facility Operating Report required by condition 40 of Operating Permit No. 241TVP01, Revision 1.

III. Limit to Protect SO_2 Ambient Air Quality Standard and Increment. Do not burn more than 3,077,928 gallons during any 12 consecutive months in Source IDs 1 through 11.

A. Track fuel consumption as required under condition II.A.

B. Report as a permit deviation any time the 12-month total exceeds the limit in condition III.

C. Include the records required under condition III.A with the Facility Operating Report required by condition 40 of Operating Permit No. 241TVP01, Revision 1.

IV. Limit to Protect NO_2 Ambient Air Quality Standard and Increment. The Permittee shall not allow the facility to cause a violation of the state ambient air quality standard and increment for NO_2.

A. Limit the total amount of all fuels burned in Source IDs 1 through 6, combined, to less than 1,440,700 gallons per 12 consecutive months.

1. By the 15th of each month, calculate and record the 12-month rolling total fuel burned in Source IDs 1 through 6 for the previous 12 months, in gallons.

2. Report as a permit deviation any time the 12-month total exceeds the limit in condition IV.A.

3. Include the records required under condition IV.A.1 with the Facility Operating Report required by condition 40 of Operating Permit No. 241TVP01, Revision 1.

B. Limit the total amount of all fuels burned in Source IDs 7 through 10, combined, to less than 1,122,577 gallons per 12 consecutive months.

1. By the 15th of each month, calculate and record the 12 month rolling total fuel burned in Source IDs 7 through 10 for the previous 12 months, in gallons.

2. Report as a permit deviation any time the 12-month total exceeds the limit in condition IV.B.

3. Include the records required under condition IV.B.1 with the Facility Operating Report required by condition 40 of Operating Permit No. 241TVP01, Revision 1.

EXHIBIT A
SOURCE INVENTORY
241CP02

ID	Source Name	Source Description
1	Diesel Generator	Caterpillar Model D-398 600kW;installed pre 1986
2	Diesel Generator	Caterpillar Model D-398 600kW;installed pre 1986
3	Diesel Generator	Caterpillar Model D-398 600kW;installed pre 1986
4	Diesel Generator	Caterpillar Model D-398 600kW;installed pre 1986
5	Diesel Generator	Caterpillar Model D-3606 1500kW;installed 1987
6	Diesel Generator	Caterpillar Model D-3608 2000kW;installed 1990
7	Steam Boiler	York Shipley FA350 350 bhp; installed pre 1986
8	Steam Boiler	Seattle Boiler Works Model HPFWB 1650 Four Pass Wet Back Boiler with S.T. Johnson FT98 Low NO_X burner rated at 9.7 MMBtu/hr; installed 2000
9	Steam Boiler	Seattle Boiler Works Model HPT-1650 300 bhp;1990
10	Steam Boiler	Kewanee Model H3S-200-GO6 200 bhp;1990
11	Fish Meal Drier	Stord Int'l. Dyno Jet Hot Air Drier, Model SIDJ-4.5 with Ray Rotary Burner, Model BGE-700 24.1 MMBtu/hr; installed 1990
12	Diesel Oil Storage Tank	20,000 gallons; installed 1987
13	Two Fish Oil Storage Tanks	20,000 gallons, each; installed 1990

EXHIBIT A
PERMIT DOCUMENTATION

This exhibit is a continuation of Exhibit E of Permit 9625-AA006.

October 11, 2000	Letter from Winn Brindle (Alyeska) to Compliance Technician, ADEC containing source stack diameters.
November 13, 2000	Source Test Data: Summary Report, Alyeska Seafood Processing Facility, Prepared by Alaska Source Testing LLC.
February 21, 2002	Application for permit modification, submitted by Greg Peters (Alyeska) to Jim Baumgartner (ADEC).
October 17, 2002	Comments on Preliminary Permit No. 241CP02 from Greg Peters (Alyeska) to Jim Baumgartner (ADEC).
October 25, 2002	Vendor Data for Cat 398, 3606, and 3608 engines faxed to Sally Ryan (ADEC) from Greg Peters (Alyeska).

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